


The Final Year Project Report entitled "Preliminary Study On The Antifungal Activities Of Selected Garden Plants Against House Mold" was submitted by Bachelor of and was approved by

**PRELIMINARY STUDY ON THE ANTIFUNGAL ACTIVITIES
OF SELECTED GARDEN PLANTS AGAINST
HOUSE MOLD**


Dr. Hendry Joseph
Supervisor

Faculty of Plantation and Agrotechnology

FAZIELLA BINTI PUASAH


Alumni Javari
Project Coordinator
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
Universiti Teknologi MARA
62997 Kota Kinabalu
Sabah


HAKMILIK
Perpustakaan
Universiti Teknologi MARA
Sabah

Menon Mahoud
Faculty of Programmes
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
Universiti Teknologi MARA

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ABSTRACT

PRELIMINARY STUDY ON THE ANTIFUNGAL ACTIVITIES OF SELECTED GARDEN PLANTS AGAINST HOUSE MOLD

Garden plants are normally use for decorative purposes and also health reason like indoor air purification. It is also used as the treatment for certain disease such as cough, swelling, fatigue and ulcer. House mold is one of the dangerous fungi that usually grow at wet condition inside the house. It is categorized as toxic black mold because it contains mycotoxin that will associate with asthma and allergic symptoms to human. Based on the identification that had been done in this study, the house molds that were used are *Stachybotrys*. In this study, three common garden plants which are *Furcraea selloa* var. *marginata* (K. Koch), *Sansevieria trifasciata* (Hort. exD. Prain) and *Zamioculcas zamiifolia* (Lodd) Engl. were used to determine whether they have potential to control the growth of house mold. Disc diffusion methods with three different concentrations (5mg/mL, 10mg/mL and 15 mg/mL) were used to assess the antifungal activity of these three plants against the house mold. The crude extraction of *S. trifasciata* showed the effectiveness to control *Stachybotrys* compare to *Z. zamiifolia*. This indicates that *S. trifasciata* and *Z. zamiifolia* have potential as bio-fungicidal agents against *Stachybotrys*.

CHAPTER 1

1.2 Problem Statement

This study was carried out in view of lack of research and study on

INTRODUCTION

Furcraea selloa var. *marginata* (K. Koch), *Sansevieria trifasciata* (Hort.

exD. Prain) and *Zamioculcas zamiifolia* (Lodd) Engl. especially on their

potential to control the growth of house mold. Previous studies showed that

the benefit of these plants for medicinal purposes and pesticides. The use

1.1 Background of Study

Garden plants are usually grown for positive psychological effects, decorative purpose and health reasons such as indoor air purification. There are many species of garden plants but in this study only three species that are used which are *Furcraea selloa* var. *marginata* (K. Koch), *Sansevieria trifasciata* (Hort. exD. Prain) and *Zamioculcas zamiifolia* (Lodd) Engl. According to Denise *et al.* (2012), garden plants can give benefit in indoor air quality within and around buildings and houses. Mold's spores easily germinated and grow in the wet area. Mold is a type of filamentous fungi which is fast growing and able to produce under moisture, nutrient condition and dispersed through water drops (Burr *et al.*, 2007). According to Bonzi *et al.* (2012), mold can also make food crops unfit for consumption during storage by producing mycotoxins or by changing the nutritional value of its seeds.